

REMARKS

This application has been carefully reviewed in light of the Office Action dated August 22, 2005. Claims 1 to 17 have been withdrawn from consideration. Claims 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, and 115 are pending in the application, of which Claims 18, 20, 82, 84, 114, and 115 are independent. Reconsideration and further examination are respectfully requested.

Initially, Applicant thanks the Examiner for the indication that Claims 30, 40, 42, 44, 46, 48, 102, 104, 106, 108, 110 and 112 contain allowable subject matter and would be allowable if rewritten in independent form.

Claims 114 and 115 were rejected under 35 U.S.C. § 101 for allegedly claiming non-statutory subject matter. Claims 114 and 115 have been amended to clarify that they are directed to a computer-readable recording medium. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Claims 18, 20, 82, 84, 114 and 115 were rejected under 35 U.S.C. § 102(a) over U.S. Patent No. 5,805,733 (Wang); and Claims 22, 24, 26, 28, 30, 32, 34, 36, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 86, 88, 90, 92, 94, 96, 98 and 100 were rejected under 35 U.S.C. § 103(a) over Wang in view of U.S. Patent No. 4,319,286 (Hanpachern). Reconsideration and withdrawal of these rejections are respectfully requested.

The present invention concerns an image processing system which can prepare a digest dynamic image by merging a specified duration of frames having a low degree of similarity with a preceding frame. Upon receipt of instructions to generate a dynamic digest, the image processing systems prepares a digest dynamic image with a length according to a length designated by a user.

Turning now to the claims, Claim 18 is directed to an image processing system. The image processing system comprises calculating means for calculating a degree of similarity from among a plurality of image frames of dynamic image data; determining means for determining scene-change frames based on the degree of similarity calculated by said calculating means; and dynamic image preparation means for performing automatic editing and preparation of a digest dynamic image of the dynamic image data by merging a specified duration of frames having a low degree of similarity with an immediately preceding frame or some preceding frames on receipt of instructions to prepare a dynamic digest such that the prepared digest dynamic image has a length according to a length designated by a user.

Thus, using an image processing system in accordance with Claim 18, it is possible to instruct a kind of a digest to be made, to designate a length of the digest image, and to generate the digest according to the instruction that is directed to the preparation of a dynamic digest, a length of which is according to the designated length. Further, according to such an instruction, a merging process is executed between the frames whose degree of similarity is low.

In contrast, Wang discloses that a scene in a video sequence is summarized by detecting scene changes. By comparing scenes to determine their similarity, similar scenes are consolidated and represented by a representative frame, a number of which are displayed to a user. Scene changes are detected by comparing average color histograms for each scene. Scenes in the video sequence are selected for summarizing according to their normalized time duration and related scenes of the selected scenes are determined by comparing the average color histograms of each pair of scenes. For each set of related scenes, a representative frame is taken and displayed to the user, wherein set of related scenes are retrieved by selecting the representative frame for the set. A length of the movie bar represents a length of the summarized video sequence.

Furthermore, Hanpachern discloses an invention which can detect a missing frame of the video information based on a condition of a sync signal, and cut a commercial based on the custom of its length.

However, neither Wang nor Hanpachern neither alone nor in combination, disclose or suggest at least the features of: an instruction for which kind of the digest, such as a dynamic digest, is to be made; selection of the frames based on the similarity according to the instruction; and that the length of the prepared digest is according to the designated length.

In light of the deficiencies of Wang and Hanpachern as discussed above, Applicant submits that amended independent Claim 18 is now in condition for allowance and respectfully requests same.

Amended independent Claims 82 and 114 are directed to a method and computer-readable recording medium, respectively, substantially in accordance with the features of the apparatus of Claim 18. Accordingly, Applicant submits that Claims 82 and 114 are also now in condition for allowance and respectfully requests same.

Amended Claim 20 is directed to an image processing system as well. In the Claim 20 the image processing system comprises: calculating means for calculating a degree of similarity from among a plurality of image frames of dynamic image data; determining means for determining scene-change frames based on the degree of similarity calculated by said calculating means; and dynamic image preparation means for performing automatic editing and preparation of a digest dynamic image of the dynamic image data by merging a specified duration of frames having a high degree of similarity with an immediately preceding frame or some preceding frames on receipt of instructions to prepare a quiet digest such that the prepared digest dynamic image has a length according to a length designated by a user.

Thus, an image processing system in accordance with Claim 20, according to the present invention, it is possible to instruct a kind of a digest to be made, to designate a length of the digest image, and to generate the digest according to the instruction that is directed to preparation of a quiet digest. Further, according to such instruction, the merging process is executed between the frames whose degree of similarity is high.

As discussed above, neither Wang nor Hanpachern neither alone nor in combination, disclose or suggest at least the features of: an instruction of which kind of the digest, such as a quiet digest, is to be made; the selection of the frames based on the

similarity according to the instruction; and that the length of the prepared digest is according to the designated length.

In light of the deficiencies of Wang and Hanpachern, Applicant submits that amended independent Claim 20 is now in condition for allowance and respectfully requests same.

Amended independent Claims 84 and 115 are directed to a method and computer-readable recording medium, respectively, substantially in accordance with the features of the apparatus of Claim 18. Accordingly, Applicant submits that Claims 84 and 115 are also now in condition for allowance and respectfully requests same.

The other claims in this application are each dependent from one of the independent claims discussed above and are therefore believed allowable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the allowability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



Frank L. Cire
Attorney for Applicant
Registration No. 42,419

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

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